

While the invention has been particularly shown and described with reference to a preferred embodiment, it will be understood that various changes in form and detail may be made therein without departing from the spirit, and scope of the invention.

**Claims:**

1. A method of dispatching on a socks server an IP datagram originated from an application on a source device, in an Internet Protocol (IP) network comprising a plurality of socks servers, said IP datagram comprising a Source IP Address field in the IP header, a Source Port field in the Transmission Control Protocol (TCP) header, and socks data, said method comprising the steps of:

in a socks dispatcher,

identifying the source device, said step comprising the further step of retrieving source address in the Source IP Address field;

identifying the application on the source device, said step comprising the further step of retrieving the application address in the Source Port field;

determining the application level protocol of socks data referring to a first table, said first table comprising for each socks connection identified by a source address and an application address, an application level protocol; and

selecting a socks server referring to a second table, said second table defining for each application level protocol one or a plurality of socks servers.

2. The method according to Claim 1 wherein said step of determining the application level protocol comprises the preliminary step of:

determining that the IP datagram comprises a socks

5 CONNECT message;

6 updating the first table with a new socks connection  
7 identified by the source address and the application  
8 address of the IP datagram;

9 retrieving the application level protocol from the  
10 IP datagram;

11 associating said socks connection with said  
12 retrieved application level protocol in said first table.

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1 3. The method according to Claim 1 wherein said IP  
2 datagram is sent with a given priority, and wherein said  
3 step of determining the application level protocol is  
4 followed by the further step of:

5 determining the priority of the IP datagram by  
6 referring to a third table, said third table defining a  
7 priority for each value of the application level  
8 protocol.

1 4. The method according to Claim 3 wherein in case  
2 of congestion in one or a plurality of output queues,  
3 said step of determining the priority of the IP datagram  
4 is followed by the further steps of:

5 discarding in said one or plurality of output queues  
6 IP datagrams having the lowest priority until there is no  
7 more congestion; and

8 discarding the IP datagram when said IP datagram  
9 compared with IP datagrams in said one or plurality of  
10 output queues, has the lowest priority.

1 5. The method according to Claim 3 wherein in case  
2 of congestion in one or a plurality of output queues,  
3 said step of determining the priority of the IP datagram  
4 comprises the further steps of:

5 selecting in said one or plurality of output queues,

6 IP datagrams that can be discarded referring to the third  
7 table, said table defining for each application level  
8 protocol an indication concerning the capacity of IP  
9 datagrams to be discarded or not in case of congestion;

10 discarding selected IP datagrams having the lowest  
11 priority until there is no more congestion; and

12 discarding the IP datagram when said IP datagram  
13 compared with IP datagrams in said one or plurality of  
14 output queues, can be discarded referring to said third  
15 table and has the lowest priority.

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1 6. The method according to Claim 1 wherein said  
2 first table is dynamic and comprises for each socks  
3 connection:

4 a source address identifying the source device;  
5 an application address identifying the source  
6 application; and  
7 application level protocol for the socks connection.

1 7. The method according to Claim 1 wherein said  
2 second table comprises for each sock server:  
3 an identifier, preferably an address;  
4 optionally, a sock server capacity; and  
5 application level protocols supported by the socks  
6 server.

1 8. The method according to Claim 3 wherein said  
2 third table comprises for each application level  
3 protocol:

4 a value corresponding to the application level  
5 protocol;  
6 a priority; and  
7 optionally, an indication concerning the capacity of  
8 IP datagrams to be discarded or not in case of

9 congestion.

1 9. The method according to Claim 3 comprising the  
2 initial steps of:

3 configuring said second and third tables,  
4 defining a default socks server for application  
5 level protocols not defined in the second table; and  
6 defining a default priority and optionally a default  
7 indication concerning the capacity of IP datagrams to be  
8 discarded or not in case of congestion, for application  
level protocols not defined in the third table.

1 10. The method according to Claim 1 wherein the step  
2 of selecting a socks server referring to a second table,  
3 comprises the further steps of:

4 determining the number of socks servers in the  
5 second table defined for the application level protocol  
6 of the IP datagram:

7 if only one socks server is defined in the second  
8 table, forwarding the IP datagram to said socks server,

9 if more that one socks server is defined in the  
10 second table, forwarding the IP datagram to a socks  
11 server selected according to its capacity and the  
12 priority of the IP datagram.

1 11. A socks dispatcher comprising means adapted for  
2 carrying out the method according to Claim 1.

1 12. A computer readable medium comprising  
2 instructions for carrying out the method according to  
3 Claim 1.